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REPORT

CD NO.

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COUNTRY	USSR	DATE OF INFORMATION	1951
SUBJECT	Scientific - Minerals/Metals, metallurgy, furnaces	DATE DIST.	5 NOV 1953
HOW PUBLISHED	Book		
WHERE PUBLISHED	Moscow	NO. OF PAGES	5
DATE PUBLISHED	1951	SUPPLEMENT TO REPORT NO.	
LANGUAGE	Russian		

THIS IS UNEVALUATED INFORMATION

SOURCE Metallurgicheskiye Pechi, Metallurgizdat, 1951, pp 3-9

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FOREWORD AND CONTENTS OF SOVIET BOOK ON METALLURGICAL FURNACES

/Comment: The 975-page book entitled Metallurgicheskiye Pechi (Metallurgical Furnaces) was published in 1951 by the State Scientific and Technical Publishing House for Literature on Ferrous and Nonferrous Metallurgy. Professor M. A. Glinkov, Doctor of Technical Sciences, was scientific editor of the book. The following includes a summary of Glinkov's foreword and the complete table of contents./

Foreword by Scientific Editor

Metallurgical Furnaces was written by a group of professors and docents of the Metallurgical Furnaces chairs of six higher educational institutions and one scientific research institute, as follows: Moscow Institute of Steel, four authors; Ural Polytechnic Institute, three authors; Dnepropetrovsk Metallurgical Institute, two authors; Moscow Institute of Nonferrous Alloys and Gold, one author; Leningrad Polytechnic Institute, one author; Siberian Metallurgical Institute, one author; and the State Scientific Research Institute of Nonferrous Metals, one author.

The metallurgical furnaces course has not yet been sufficiently established because of serious differences of opinion formerly existing in the field of the theory of furnaces.

The previous theories of furnaces, such as the hydraulic or energetic theories, cannot now be used; therefore it has been necessary to formulate the fundamental principles of the contemporary theory of furnaces on the basis of the experience of Soviet science and practice.

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For these reasons, no textbook on metallurgical furnaces had been written up to the present. Existing books, illustrating various trends in the field of the theory of furnaces, naturally did not satisfy educational purposes. In the process of their work, the authors of Metallurgical Furnaces came to the conclusion that it would be necessary to revise the methods of constructing the course and to rework a number of subjects previously treated on the basis of inferior or dubious data.

This textbook was based on the data of Soviet science and the advanced practice of Soviet plants, and on the results obtained at planning organizations. The authors attempt to present the information in the most condensed form possible. This is not fully accomplished in all cases. However, the textbook is a good substitute for the several books previously used by students over a period covering three semesters.

In conformity with the program, this book does not include any information on the electric furnaces of ferrous metallurgy or any data on automatic control, since these subjects are studied in separate courses. Also, data on laboratory practice are not included in the book because an appropriate manual is proposed for publication.

The appendix contains certain reference data essential in studying the course and required for the solution of examples given in the book.

The bibliography lists 175 Soviet publications, including several translations from English and German texts.

Separate sections and chapters in the book were written by the following authors:

Introduction and Conclusion	Professor M. A. Glinkov and A. I. Vashchenko
Fuels and Combustion Calculations	Docent S. G. Troyb, Candidate of Technical Sciences (Chapters 1-7) and Docent M. V. Kantorov, Candidate of Technical Sciences (Chapters 8-12)
Materials for Construction of Furnaces	Docent L. A. Plotnikov, Candidate of Technical Sciences
The Mechanics of Gases	Professor M. A. Glinkov and Professor V. A. Baum, Doctor of Technical Sciences
Theory of Similarity and Heat Transfer by Convection	Professor M. A. Kuz'min, Doctor of Technical Sciences
Heat Transfer by Radiation	Docent D. V. Budrin, Candidate of Technical Sciences
Heat Transfer by Conduction	Professor I. D. Semikin
Heating and Melting of Metal	Professor N. Yu. Tayts, Doctor of Technical Sciences
General Principles of Furnaces Design	Docent I. S. Nazarov, Candidate of Technical Sciences; Professor M. A. Glinkov; Professor B. I. Katayev, Doctor of Technical Sciences

Equipment and Elements of Furnaces	B. I. Kitayev and I. D. Semikin
Fuel Economy of Metallurgical Industry and Furnaces for Ferrous Metallurgy Plants	Docent A. I. Vashchenko, Candidate of Technical Sciences
Furnaces for the Plants of Nonferrous Metallurgy	Docent A. Ya. Mikhaylenko, Candidate of Technical Sciences; B. L. Granovskiy, Engineer; V. V. Krapuchin, Candidate of Technical Sciences

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